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REPORT OF PLACERVILLE INFESTATION UNIT
INSECT CONTROL PROJECT

Season of 1951

By

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The Placerville infestation unit is comprised of the public and private lands lying within a two-mile radius of the Institute of Forest Genetics, Placerville, California

The unit is divided into two different general areas. The area north of the Institute is gently rolling orchard country with small isolated patches of timber, predominantly ponderosa pine, but with some incense cedar and digger pine. The area south of the Institute is about 1,000 feet lower in elevation and is more heavily timbered than the northern area. The predominant species in this area is ponderosa pine, but there is a great deal of digger pine and some incense cedar in combination with this species. To the west of the Institute there is some young sugar pine mixed with the ponderosa pine. This species occurs characteristically on the ridge tops.

Prior to the control work of this season there has been very little insect control work in this area. The only actual work of this type has been undertaken by the staff of the Institute of Forest Genetics, and it has been in the form of a periodic clean-up of dead trees on the grounds of the Institute. In addition, they have removed the tops of valuable seed trees which were killed by engraver beetles.

In general, the infestation on the grounds of the Institute and in the surrounding areas has remained at an endemic level with only a few trees killed every year by the western pine beetle, Dendroctonus brevicomis, and the five-spined engraver beetle, Ips confusus. These trees appear to have been more or less randomly distributed over the unit, and there is no evidence of large buildups in any given area.

The insect control project of this season was undertaken when plans were made to conduct studies of the resistance of various hybrid pines to bark beetles. It was feared that some of these tests might be influenced to some extent by the attacks of insects other than the desired species which were being forced on the trees. To prevent this condition, the control work of this season was initiated to reduce the natural insect population in the surrounding areas to a very low level and, thus, to insure against undesirable attacks on the caged trees. The only insect with which this control project was concerned was the western pine beetle on ponderosa pine.

Organization of Control Work

The control project was undertaken on a cooperative basis with the participation of the staff of the Institute of Forest Genetics, California Forest and Range Experiment Station, and the Forest Insect Laboratory, Berkeley. In that the project was a small one and that it came at a slack

season for the Institute personnel, it was not necessary to hire any additional personnel or equipment.

The actual spotting of the infested brood trees was undertaken by R. Z. Callaham of the Forest Insect Laboratory. After the trees had been spotted, their locations were plotted on a map and the ownerships involved were determined by W. C. Cumming, who secured the owner's permission to conduct the actual control work. The actual control work was carried out by A. R. Liddicoet, E. F. Kimbrough, and E. J. Carpender of the Institute's staff.

Work Accomplished

Spotting - The spotting of all infested trees was done from a pickup, and because of the excellent system of roads in the area as well as the large number of excellent high vantage points, very little spotting on foot was necessary. Four-man days were used in spotting and marking the trees to be controlled on over 5000 acres of land. An additional day was required for the preparation of a report of the spotting and a map of the locations of the infested trees.

Securing permission to proceed with work - This phase, perhaps peculiar to a project undertaken on lands made up of many small, private ownerships, occupied a large part of Cumming's time.

Actual control work - There were forty-two trees marked for treating; these trees were predominately in groups with occasional single trees. The marked trees were felled and burned, or felled, peeled and burned, depending on the size of the trees and burning conditions where the trees were felled. Treating of these trees required 25.6 man days, or 1.64 trees per man day. The total expenditure for the project was $1,490.08, or $35.48 per tree. This cost per tree, which is somewhat high in view of the costs on other projects, may be attributed to (1) the scattered distribution of the infested trees, (2) the time required to contact the many private owners whose trees were involved in the project, and (3) the comparatively high pay scale of the persons who did the actual control work. This last factor may not be too important, in that, it is doubtful whether any reduction in cost per tree could be attained by using lower-salaried personnel who would have to be procured, trained, and supervised to do the job as well as it was done.

Additional information on the diameters or the nature and extent of infestations of each tree were not taken. The control job was well underway before the crew was informed of the need for this information; thus, at best, only parts of the trees could have been analyzed.

Conclusions and Recommendations

The control work was very well done. For such control work as is done in this area in the future, it is recommended that the same procedure be followed in undertaking the actual control work as was followed this year. Due to the climatic conditions which prevail in this area during the control season, burning of the infested materials where they are felled seems to be the most efficient method of control. Peeling is laborious and time-consuming, and it should be avoided whenever possible. When the prevailing conditions prohibit burning of the infested materials where they lie, then it is recommended that the logs be bucked and hauled to the Institute's dump for burning, that is, unless the size or number of logs, or hauling distance makes peeling of the bark more efficient.

Cost of the Work

Total segregated costs of the work:

Salaries	Grade	Rate	Cost to Project	
Carpender	GS-4	3035	224.92	
Tibbs	GS-4	3195	61.44	
Kimbrough	GS-5	3850	222.12	
Liddicoet	GS-6	3700	355.78	
Cumming	GS-9	4850	93.27	
Duffield	GS-9	5100	87.08	
Total salaries				1044.61
Communications				4.20
Supplies				
Chemicals			132.24	
Chain saw parts			41.03	
Equipment				
Chain saw			268.00	
Total supplies and equipment				441.27
Total Expended				1490.08
Total cost per man day				58.21

(Note - 296 miles on automotive equipment were expended on this project, but this was not charged to the project.)